



**REPORT OF THE FIFTH MEETING OF THE
AERODROME OPERATIONAL PLANNING SUB-GROUP (AOP/SG/5)
OF THE AFI PLANNING AND IMPLEMENTATION
REGIONAL GROUP (APIRG)**

(Dakar , 26 -28 March 2003)

The designations employed and the presentations of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its frontiers or boundaries

LIST OF ABBREVIATIONS

ICAO abbreviations and acronyms are contained in the ICAO PANS ABC (Doc. 8400), the ICAO Lexicon (Doc. 9294) and other relevant terminology material. Those listed here have been chosen due to their relevance to the activities of the AOP/SG and/or are frequently found in this report in order to assist in its reading.

A: Abbreviations in the AOP Table

A:1 General

RFF	Required rescue and fire fighting service
APP	Approach control service
TWR	Aerodrome control tower
ATIS	Automatic Terminal Information Service
AFIS	Aerodrome Flight Information Service
GNSS	Global Navigation Satellite System
RWY NO	Runway designation numbers
RC CR	Aerodrome reference code for aerodrome characteristics
RWY Type	NINST (Non instrument), NPA (Non precision), PA1 (precision approach CAT 1), PA2, PA3
TWY	Taxiway to be provided
RWY LENGTH	Runway balanced field length
PAVEMENT STRENGTH	Critical aircraft for pavement strength and pavement strength expressed as all-up mass in thousands of Kg.

A:2 Radio navigation aids:

ILS	Instrument Landing System "X" or 1, 2, 3 if different from runway type + "D" if DME should be provided
VOR	Very high frequency Omnidirectional Range + "D" if DME is associated
NDB/L	Non Directional beacon or Locator

A:3 Lighting aids:

PA	Precision approach lighting system "X" or 1, 2, 3 if different from runway type
SA	Simple approach lighting system
VA	Visual approach slope indicator "L" if PAPI or T-VASIS, "S" if PAPI or APAPI
RWY	Runway edge, threshold and runway end lighting
CLL	Runway centre line lighting
TDZ	Runway touchdown zone lighting
TE	Taxiway edge lighting
TC	Taxiway centre line lighting
STB	Stop bar lighting
B	Aerodrome or identification beacon

A:4 Marking aids:

DES	Runway designation marking
CLM	Runway centre line marking
THR	Runway threshold marking
TDZ	Touchdown zone marking
SST	Runway side strip marking
AMG	Runway aiming point marking
TWY	Taxiway centerline marking and where required, edge
HLD	Holding position marking

A:5 Runway visual range:

TDZ	Observation representative of the TDZ
MID	Observations representative of the middle of the runway
END	Observations representative of the end of the runway

B: Other Abbreviations.

AFI	Africa Indian Ocean Region
ANP	Air Navigation Plan
FASID	Facilities and Services Implementation Document
ASECNA	Agency for the Safety of Air navigation in Africa and Madagascar
SADC	Southern Africa Development Community
ESAF	Eastern and Southern Africa Region
WACAF	Western and Central African Region
APIRG	AFI Planning and Implementation Planning Group

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(Dakar, 26 - 28 March 2003)**
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PART 1 - HISTORY OF THE MEETING

1. HISTORY OF THE MEETING

1.1 Date and site of the meeting

1.1.1 The fifth meeting of the Aerodrome Operational Planning Sub-Group (AOP/SG) was held in the conference room of the ICAO Western and Central African (WACAF) Office, Dakar, from 26 to 28 March 2003)

1.2 Officers and Secretariat

1.2.1 The meeting was chaired by Mr. Mesroua Amine Debaghine of Algeria.

1.2.2 Mr. L.W. Ndiwaita, the AGA Regional Officer for the Nairobi ESAF Office was the Secretary of the meeting assisted by Mr. J.C. Waffo, the AGA Regional Officer for the Dakar WACAF Office.

1.2.3 The meeting was opened by Mr. Amadou Cheiffou, the Regional Director for the ICAO WACAF Office.

1.3 Agenda

1.3.1 The following was the agenda adopted by the meeting:

Agenda Item 1: Follow-up action on APIRG/13 meetings Conclusions and Decisions.

Agenda Item 2: Review of the deficiencies in the AOP field.

Agenda Item 3: Follow-up on specific Annex 14 requirements.

3.1 Rescue and fire fighting

3.2 Bird hazard control and reduction

3.3 Aerodrome emergency planning

Agenda Item 4: Review report of the New Larger Aircraft Task Force Report.

Agenda Item 5: Aerodrome certification.

Agenda Item 6: Review of the FASID.

Agenda Item 7: Any other business.

1.4 Participation

1.4.1 The meeting was attended by 25 participants from ten States and two International Organizations of ASECNA and IATA. This represented 8 of the 26 members of the AOP/SG as approved at APIRG/12..

1.4.2 The list of participants is attached at **Appendix A** to this report.

1.5 Working Languages

1.5.1 The meeting was conducted in English and French with simultaneous translation. Language services were provided by Mr. Jerome Belinga, WACAF Regional language Officer assisted by two free-lance interpreters.

1.6 Report

1.6.1 The Report of the fifth Meeting of the Aerodromes Operational Sub-Group (AOP/SG) was approved by the Meeting on 28 March 2003. In accordance to the APIRG Procedures Handbook, the AOP/SG records its action in the form of draft conclusions, draft decisions and decisions defined as follows:-

Draft Conclusions:- Matters which, in accordance with the APIRG Terms of reference, merit directly the attention of States or on which further action will be initiated by ICAO in accordance with established procedure.

Draft Decisions:- Matters of concern only to the APIRG and its contributory bodies.

Decisions:- Matters of concern only to itself.

1.7 List of Draft Conclusions.

Draft Conclusion 5/1: Autonomous authorities

Draft Conclusion 5/2: Rescue and fire fighting equipment and tools for airports close to large bodies of water

Draft Conclusion 5/3: Bird hazard control and reduction

Draft Conclusion 5/4: Regular updating and testing of aerodrome emergency plans

Draft Conclusion 5/5: Planning of new larger aeroplanes

Draft Conclusion 5/6: Aerodromes certification workshops

PART II - REPORT ON AGENDA ITEMS

**AGENDA ITEM 1: FOLLOW- UP ACTIONS ON APIRG/13 MEETING CONCLUSIONS
AND DECISIONS**

Agenda Item 1: Follow-up of APIRG/13 Meeting Conclusions and Decisions concerning aerodromes services**1.1 General**

The AOP/SG/5 Meeting reviewed the APIRG/13 Conclusions and Decisions related to the progress and status of implementation of aerodromes services in the AFI Region. The meeting acknowledged that non-implementation of these facilities and services had an impact to the safety of operations. The concerns of the ICAO Council on the lack of noticeable progress in the reduction or total removal of deficiencies in the AOP field in the AFI Region was emphasized to the meeting.

1.2. Bird hazard reduction

The meeting noted that following Conclusion 13/1 of APIRG/13 on the issue of bird hazard reduction, the ICAO ESAF Office had held a workshop at Kampala, Uganda 21-23 August 2002 at which there were 65 participants from 13 States. Uganda, the host State used the opportunity to involve in the workshop members of the bird hazard committee, lawyers, the civil aviation authority management, representation of the local communities and the media. The workshop made several recommendations that are discussed and reported in Agenda Item 3.2.

1.3. Impact of new larger aeroplanes in the AFI Region

The meeting was informed that following the Conclusion 13/2 which called for the establishment of a New Larger Aeroplanes Task Force (NLA/TF) to effectively evaluate the likely impact of NLAs on the aerodromes in the AFI Region, the TF had held one meeting at Dakar, 24-25 March 2003. The report of the TF meeting was reviewed by the meeting and is reported under Agenda Item 4.

1.4. Human factors in the AOP field

1.4.1 APIRG/13 discussed at length the issue of human factors in the AOP field. It emphasized that in spite of the recent technological advancements, interaction of humans with technology was still indispensable. Consequently, APIRG/13 developed a Conclusion 13/3 which required States to allocate sufficient resources for training and retraining of staff and to formulate appropriate policies on the management of personnel that ensures the retention of the trained staff.

1.4.2 The meeting was informed that on its part ICAO had continued to promote the establishment of autonomous civil aviation authorities after elaborate feasibility studies. This was because ICAO had noted that where such authorities had been established the management had been sufficiently empowered to develop through their management board elaborated staff development and motivation programmes that have resulted to not only performance enhancement but also improvement of efficiency.

1.4.3 Nevertheless the meeting was of the view that ICAO should in the promotion of the establishment of autonomous authorities emphasize that in addition to management autonomy, the authorities should have financial autonomy.

1.5. **Aerodromes Emergency Planning (AEP)**

The meeting noted the concerns expressed by APIRG/13 regarding the lack of progress in this matter and that workshops held by ICAO were not causing substantial implementation of this vital requirement. This matter was dealt further under Agenda Item 3.3.

1.6. **Rescue and fire fighting**

In recognition of the many deficiencies that still exist in the provision of RFFS at a number of airports in the Region, the meeting reviewed this matter under Agenda Item 3.1.

AGENDA ITEM 2: REVIEW OF THE LIST OF DEFICIENCIES IN THE AOP FIELD.

Agenda Item 2: Review of deficiencies in the AOP field

2.1. Discussions

2.1.1 The Meeting was informed on the changes adopted by the Council on the uniform methodology for the identification, assessing and reporting of deficiencies of air navigation systems, notably on the format of the list of deficiencies where the terms “shortcomings and deficiencies have been replaced by the single term “deficiencies”. The Sub-group then reviewed and updated the list of deficiencies in the AOP field.

2.2.2 The Sub-group noted the efforts made by the Secretariat, through the various sources available to keep the list up-to-date. It also encouraged the Secretariat to continue the provisions taken to ensure the States validate the deficiencies raised on their territories by different sources other than ICAO. The Sub-group outlined the need for States to systematically inform the Secretariat on corrective actions taken and reply to letter sent by the Secretariat for validation of deficiencies identified on their territories so that the list can be kept updated and reliable.

2.3.3 The Sub-group noted with satisfaction the efforts made by some States to eliminate certain deficiencies in spite of the scarcity of resources and agreed that these efforts must be continued and encouraged. However, much remains to be done as the list has not decreased significantly.

In this regard, the Sub-group was informed on the concern expressed by the Air Navigation Commission and the Council about persistent deficiencies, in particular those impairing safety. Among the reasons identified by the meeting, there was the lack of financial resources for some States, the lack of financial and/or decision-making autonomy for some States having created autonomous entities, inadequate approach in implementing some corrective actions.

After lengthy discussions, it appeared also evident that some States were not giving the necessary priority to the elimination of some major deficiencies due to lack of awareness. Therefore, the need to increase awareness of the highest authorities was highlighted. The meeting was of the view that this could be obtained through the briefing of these authorities during missions to States by the Secretariat or through State letters to States concerned explaining the possible consequences if the deficiencies were not eliminated and urging those States to develop an action plan for corrective actions.

The meeting therefore reaffirmed the relevance its APIRG/12 conclusions 12/56 12/57 and 12/58 that reads as follows:-

APIRG/12 CONCLUSION 12/56: INSTITUTIONAL STRATEGIES FOR ADDRESSING SHORTCOMINGS IN THE AOP FIELD AT AIRPORTS IN THE AFI REGION.

THAT STATES WHICH HAVE NOT DONE SO CONSIDER FAVOURABLY THE FORMATION OF AUTONOMOUS AUTHORITIES AS AN INSTITUTIONAL STRATEGY TO ADDRESS SHORTCOMINGS AND DEFICIENCIES IN ACCORDANCE TO THE AFI/7 RAN RECOMMENDATION 14/3.

APIRG/12 CONCLUSION 12/57: COORDINATED APPROACH TO SOLVE PERSISTENT PROBLEMS.

THAT WHERE THERE ARE OBVIOUS PERSISTENT PROBLEMS ICAO COORDINATE WITH THE USERS, IN PARTICULAR IATA AND IFALPA, AND THE STATE OR GROUP OF STATES CONCERNED TO DEVELOP AN APPROPRIATE STRATEGY FOR REMOVAL OF THE SHORTCOMINGS AND DEFICIENCIES.

APIRG/12 CONCLUSION 12/58 - INTEGRATED SUB-REGIONAL APPROACH TO THE REMOVAL OF SHORTCOMINGS AND DEFICIENCIES.

THAT STATES CONSIDER THE USE OF SUB-REGIONAL GROUPINGS WHERE THEY EXIST TO COLLECTIVELY DEAL WITH REMOVAL OF SHORTCOMINGS.

In addition, the meeting developed the following draft Conclusion:

DRAFT CONCLUSION 5/1: AUTONOMOUS AUTHORITIES

THAT WHEN AUTONOMOUS AUTHORITIES ARE ESTABLISHED, GOVERNMENTS SHOULD ENSURE THAT THEY ARE VESTED WITH MANAGEMENT, FINANCIAL AND DECISION-MAKING AUTONOMY IN ORDER TO FACILITATE ALLOCATION AND FAST MOBILIZATION OF RESOURCES FOR THE ELIMINATION OF AIR NAVIGATION SYSTEMS DEFICIENCIES.

AGENDA ITEM 3: FOLLOW-UP ON ANNEX 14 REQUIREMENTS

Agenda Item 3: Follow-up on specific Annex 14 requirements**3.1: Rescue and fire fighting (RFF)**

3.1.1. The Sub-group noted Amendment 4 to Annex 14, Volume I, which introduced and updated a certain number of specifications relating to rescue and fire fighting including new specifications on rescue and fire fighting in difficult environment, new specifications on water replenishment, deletion of the references to halons and to carbon dioxide as complementary agents and revised specifications on response time. The meeting was also reminded that as from 1st January 2000, the aerodrome RFFF category could be lowered only by one category as per Annex 14, Volume I, Standard 9.2.2.

3.1.2. The Sub-group noted that regional Offices of Dakar and Nairobi have conducted periodical review of the rescue and fire fighting services within the AFI region, which have revealed that most international aerodromes have proper installation and services.

3.1.3. However some international aerodromes still have a level of protection lower than that required. This deficiency is mostly due to the lack of financial resources, in particular for small airports receiving some large aircraft, but where the level of traffic remains relatively low. Moreover, there are some cases where the RFF vehicles are broken down for long periods or function with reduced performances, thus lowering the level of protection.

3.1.4. The issue of rescue in difficult environment, in particular for aerodromes located close to great stretches of water or swampy areas, was discussed and the lack of adequate equipment and trained personnel to operate in these areas was emphasized. In view of the high cost involved, the meeting agreed that those airports where such equipment is not available, should arrange mutual agreement with equipped agencies such as coast guards or even communities familiar with the specific environment such as fishermen as experienced by some States.

3.1.5. On the issue of training, the meeting was informed by Ghana and ASECNA on new training facilities available at Accra airport and at the ASECNA regional fire fighting training school (ERSI), Douala, for live fire exercise. Regional Offices continue to assist States, directly during missions and through correspondences or by organizing regional workshops like that programmed in Ghana from 28 July to 1st August 2003.

3.1.6. After lengthy discussions on new specifications related to response time, the meeting stressed the need for the fire fighting vehicles to be maintained in good operating conditions and it was recalled as indicated in the Airport Services Manual, Part 1, that for some airports, satellite fire stations or pre-positioning of fire vehicles close to movement areas might be necessary to meet the response time.

3.1.7. In the light of the above considerations, the meeting re-affirmed the relevancy AFI/7 RAM meeting conclusion 4/6 and develop the following draft conclusion:

DRAFT CONCLUSION 5/2: RESCUE AND FIRE FIGHTING

**EQUIPMENT AND TOOLS FOR AIRPORTS
CLOSE TO LARGE BODIES OF WATER.**

THAT STATES SHOULD ENSURE THAT AIRPORTS CLOSE TO LARGE BODIES OF WATER OR SWAMPY AREAS ARE PROVIDED WITH APPROPRIATE RESCUE AND FIRE FIGHTING EQUIPMENT AND ADEQUATELY TRAINED PERSONNEL OR, IF NECESSARY, CONCLUDE MUTUAL AGREEMENT WITH SPECIALIZED AGENCIES.

3.2: Bird Hazard control and reduction

3.2.1. APIRG/13 having noted the substantial efforts that States were making in developing and maintaining bird hazard reduction measures that were proving to be effective was of the view that the success being witnessed was as a result of the awareness created through the many ICAO workshops that had been held. APIRG/13 therefore developed a Conclusion 13/1 that required ICAO to continue holding more workshop and to request States to host them so as to allow other agencies and individuals involved to participate. The meeting noted that in the spirit of this Conclusion, both the ICAO ESAF and WACAF Offices had held such workshops.

3.2.2. The meeting reviewed the various recommendations made at the workshops, the AFI/7 RAN Meeting Conclusion 4/7 and the recommendation in Annex 14, Volume 1, on the subject and raised the following observations:

- a) At some airports, bird hazard committee participation was delegated to junior and/or unexperienced staff making it ineffective;
- b) At some airports, the reporting of bird strikes was left to the airline involved and these mostly reported only the serious strikes and in many cases they report to their home State;
- c) At some airports, there was no sufficient involvement of neighbourhood communities;
- d) At some airports, control methods were being implemented without prior in-depth ornithological studies.

3.3.3 The meeting acknowledged the efforts by ICAO in the awareness creation through workshops and registered its appreciation to those States that had hosted the workshops. Nevertheless, the meeting was of the view that such efforts should continue. The meeting therefore reaffirmed the relevance of both the AFI/7 RAN Conclusion 4/1 and the APIRG/13 Conclusion 13/1.

3.3.4. The meeting further developed the following draft conclusion:

DRAFT CONCLUSION 5/3: BIRD HAZARD CONTROL AND REDUCTION.

THAT:

- a) **STATES FACING BIRD HAZARD PROBLEM SHOULD CONDUCT ENVIRONMENTAL AND ORNITHOLOGICAL STUDIES IN ORDER TO ENSURE THE DISPERSAL AND CONTROL METHODS SELECTED ARE APPROPRIATE, EFFICIENT AND COST EFFECTIVE.**
- b) **THAT AIRCRAFT OPERATORS SHOULD BE ENCOURAGED TO REPORT ALL BIRD STRIKES TO THE AIRPORT OPERATOR.**

3.3: Aerodromes emergency planning (AEP)

3.3.1. The meeting received a summary of the status of implementation of this requirement in the AFI Region. This summary showed that although the subject of AEP had been on the AOP/SG agenda as far back as its first meeting in 1991 and in the APIRG agenda before that several States had not fully complied with this requirement. A recent ICAO survey had indicated that the status with States was varied as follows:

- a) Some States had no plan at all (a “draft” plan that remained unapproved for a long time was considered not to be a plan).
- b) Some States had plans which were not regularly updated (effectively becoming a “no plan” status).
- c) Some States had plans which were not well coordinated with the other responding agencies (unless agencies understand their role, little assistance can be expected).
- d) Some States do not allocate appropriate resources for maintenance and management of the plan. (Review, publication and amendment require resources).
- e) Some States have plans that are not tested: (without testing the integrity of the plan remains doubtful).

3.3.2. APIRG/13 reaffirmed the APIRG/12 Conclusion which in addition to reemphasizing the Annex 14, Volume 1 requirement on establishment of AEPs, the conduct of partial and full scale exercises and keeping the plans under constant review, required ICAO to assist States in the process of developing of the plans and to hold workshops on the subject.

3.3.3. On its part ICAO continues to offer assistance on request. When the resources required are substantial, the request is channeled through the ICAO Technical Cooperation Bureau. Further, ICAO continues to hold workshops in the subject at appropriate intervals.

3.3.4. The meeting was reminded that with the coming into effect of the new requirement for aerodromes certifications in November 2003, development of the AEP becomes a prerequisite for the consideration for certification. Consequently, the meeting urged States to give this matter priority in their plans towards the certification process.

3.3.5. On the issue of facilities for removal of disabled aircraft, the Meeting was informed that Ghana had acquired such equipment for a B747 and that States in need could contact the Authorities.

3.3.6 The meeting therefore developed the following draft conclusion:

**DRAFT CONCLUSION 5/4: REGULAR UPDATING AND TESTING OF
AERODROMES EMERGENCY PLANS**

**THAT STATES SHOULD DESIGNATE AN APPROPRIATE NATIONAL
COORDINATOR FOR THE AIRPORT EMERGENCY PLAN WHOSE
RESPONSIBILITY SHALL BE TO ENSURE REGULAR UPDATING AND
TIMELY TESTING.**

AGENDA ITEM 4: REVIEW OF THE REPORT ON NEW LARGER AIRCRAFT TASK FORCE

Agenda Item 4: Review of the report of the NLA/TF

4.1. The meeting considered the report of the NLA/TF meeting held at the ICAO WACAF offices in Dakar, Senegal, 24 - 25 March 2003.

4.2. On the main characteristics of NLAs and their impact on airport planning and operations, the AOP/SG noted that the A380 had made sufficient progress towards its entering commercial operation in first quarter of 2006. The manufacturer had posted a preliminary issue of the "A380 Airplane Characteristics for Airport Planning" document that provides important information at its web site (www.airbus.com).

4.3. The Sub-Group noted that due to the design of the tyre arrangement, the NLAs would not require any higher pavement strength than the ICAO Code 4E. Nevertheless drainage culverts and bridges would require strengthening. However in order to fully meet requirements of Code 4F aeroplanes, runways at existing airports would have to be widened from the current 45 m to 60 m. Because of the physical dimensions of the aircraft whose wingspan is 15m wider, the overall length 2m more and weighs a colossal 160t heavier than the B747-400, existing airports expected to receive these aircraft have to re-evaluate the operational procedures. ICAO Annex 14, Volume 1 provides the standards and recommended practices that are required to be implemented for these NLAs or Code "F" aeroplanes.

4.4. On the impact of NLAs on RFF requirements, the Sub-Group noted that ICAO has already introduced a CAT1 0 for aerodromes expected to receive Code F aeroplanes. Nevertheless, it was acknowledged that in view of the higher passenger capacity (555 passengers), bearing in mind that the major objective of an emergency operation was to save lives, there was need to consider significant review of the rescue facilities and tools and the complementary training of RFF personnel to intervene effectively on the two decks loaded in full length.

4.5. With regard to the associated emergency plans, the Sub-Group noted that at airports expected to receive these airplanes, the existing aerodrome emergency plans would have to be reviewed bearing in mind the higher passenger capacity and therefore casualty volumes. This was necessary to ensure the responding agencies are made aware of the extra resource requirements.

4.6. The Sub-Group also noted that since current recovery kits were designed for the Code E aeroplane, suitable disabled removal equipments would have to be investigated.

4.7. Due to the higher passenger capacity, the facilitation in the terminal building would require review. This would include both the landside and airside facilities. Airport access, landside car parks, check-in areas, baggage handling and processing systems, waiting areas, boarding and arrival concourses, police and security checks etc., would require review in order to maintain acceptable levels of service.

4.8. Ground handling equipment including push-back equipment, aerobridges, passenger ladders, apron buses, fuel loading facilities, aircraft cleaning facilities etc., would have to be reviewed.

4.9. The Sub-Group noted with appreciation the amount of work covered by the task force in its first meeting. It however acknowledged that bearing in mind the work it expected the task force to cover the TF should continue its function.

4.10. Consequently the AOP/SG adopted the following draft conclusions proposed by the TF:

DRAFT CONCLUSIONS 5/5: PLANNING FOR NEW LARGER AEROPLANES

THAT

- a) **STATES, ASSISTED BY ICAO, SHOULD CARRY OUT A SURVEY OF THE AIRLINES REQUIREMENT IN ORDER TO IDENTIFY WHICH AIRPORTS ARE EXPECTED TO RECEIVE OPERATIONS OF NLA_s IN THE MEDIUM AND LONG TERM. IATA SHOULD BE REQUESTED TO SUPPORT AND ASSIST STATES IN THIS REGARD.**
- b) **STATES PLANNING FOR NEW AIRPORTS SHOULD WHEREVER POSSIBLE ACQUIRE SUFFICIENT LAND FOR CODE 4F CONSIDERATIONS AND DEVELOP MEDIUM AND LONG TERM MASTER PLANS ACCORDINGLY.**
- c) **STATES CONTINUE TO MONITOR DEVELOPMENTS IN THIS MATTER IN ORDER TO BE AWARE OF THE APPROPRIATE STANDARDS AND RECOMMENDED PRACTICES AS DEVELOPED AND APPROVED BY ICAO FOR IMPLEMENTATION.**
- d) **THAT STATES SHOULD BEGIN TO PLAN FOR APPROPRIATE TRAINING OF RFFS PERSONNEL IN ORDER TO MEET NLA REQUIREMENTS.**
- e) **AIRPORTS IDENTIFIED TO BE CONSIDERED FOR OPERATION OF THE NLA SHOULD EVALUATE THEIR INFRASTRUCTURE, SERVICES AND HUMAN RESOURCES TO DETERMINE WHAT ACTIONS NEED TO BE TAKEN TO PREPARE THEM FOR THESE OPERATIONS.**
- f) **STATES PLANNING DEVELOPMENT OF NEW AIRPORTS SHOULD CONSIDER CONSTRUCTION OF SOME FACILITIES REQUIRED FOR CODE F AERODROMES IN THE FIRST PHASE (CULVERTS, BRIDGES, PAVEMENT FOUNDATIONS) IN ORDER TO AVOID DEMOLITIONS AND ASSOCIATED IMPACT AT A LATER DATE.**

AGENDA ITEM 5:AERODROME CERTIFICATION

Agenda Item 5: Aerodrome certification

5.1. The Sub-Group discussed the requirement in Annex 14, Volume 1 related to Aerodrome Certification bearing in mind the cut-off date of 27 November 2003. The Sub-Group also reviewed the guidelines provided by ICAO in the Manual of Certification of Aerodromes, Doc. 9774 for uniform implementation of the Standard.

5.2. It is accepted that States need to enact basic legislation that will provide for the requirement for the certification of aerodromes. Such regulation should identify the regulatory authority and vest it with the necessary powers to enforce compliance. The requirement for certification should apply equally to government operated State-owned aerodromes and to airports operated by others.

5.3. As a prerequisite to the application for aerodrome certification, an aerodromes manual should be prepared by the operator and approved by the regulatory authority. The Manual contains in Appendix 1 a description of the structure of the Aerodromes Manual. The information contained in the Aerodrome Manual should effectively demonstrate that the aerodrome conforms to the certification standards and practices and that there are no apparent shortcomings, which would adversely affect the safety of aircraft operations. It should enable the CAA to assess the suitability of the aerodrome for the operations proposed and to judge the applicant's fitness to hold a certificate.

5.4. The Sub-Group was informed that the ICAO Regional Offices of ESAF and WACAF intended to hold workshops specifically dedicated to this subject in June and May respectively. In addition, the ESAF office will discuss the issue of aerodromes certification during the meeting of heads of the civil aviation and airports authorities scheduled for Mid April 2003.

5.5. The Sub-Group identified the need to provide appropriate training to personnel who would be involved in the certification process in particular the inspectors and the auditors and the meeting was of the view that in order to ensure uniformity this training should be in accordance to ICAO training programme.

5.6. The Sub-Group therefore made the following draft conclusions:

DRAFT CONCLUSION 5/6: AERODROMES CERTIFICATION WORKSHOPS.

- a) **THAT ICAO ORGANIZE WORKSHOPS IN ORDER TO SENSITIZE THE STATES OF THE REGION, IN PARTICULAR ON THE NEED FOR QUICK DEVELOPMENT OF AN APPROPRIATE REGULATORY FRAMEWORK AND PROVIDE THE REGULATORY BODY RESPONSIBLE FOR AERODROME CERTIFICATION WITH A SUITABLE ORGANIZATIONAL STRUCTURE AND QUALIFIED HUMAN RESOURCES TO CARRY OUT THE FUNCTIONS OF CERTIFICATION.**

- b) **THAT STATES WHICH HAVE NOT DONE SO TAKE APPROPRIATE MEASURES TO DEVELOP AN ACTION PLAN TOWARDS ACHIEVING THE IMPLEMENTATION OF THE REQUIREMENT FOR AERODROMES CERTIFICATION IN ACCORDANCE TO PARA. 1.3 OF ANNEX 14, VOLUME 1.**

- c) **THAT STATES SHOULD DEVELOP A TRAINING PROGRAM FOR ADEQUATE AERODROMES CERTIFICATION INSPECTORS AND AUDITORS.**

AGENDA ITEM 6: REVIEW OF THE FASID

**Agenda Item 6: Facilities and Services Implementation Document (FASID)
for AFI region - Part III - AOP**

6.1 The meeting reviewed the draft Basic Air Navigation Plan (ANP) and Facilities and Services Implementation Document for AFI region - Part III - AOP, developed by APIRG/13.

6.2 The meeting was informed on new development of the CNS Table with respect to GNSS column, which will affect the content of Table AOP.

AGENDA ITEM 7: ANY OTHER BUSINESS

Agenda Item 7: Any other Business

7.1 Terms of reference (TOR) and work schedule of the AOP/SG

The TOR, work programme and composition of the AOP/SG is as per the attached **Appendix C**.

7.2 Date and venue of AOP/SG/5

The Meeting was informed that the date and venue of the sixth meeting of the AOP/SG shall be determined at APIRG/14 based on the date and venue of APIRG/15.

APPENDICES

**APPENDIX A: LIST OF PARTICIPANTS TO THE FIFTH MEETING OF THE AERODROMES OPERATIONAL PLANNING SUB-GROUP
CINQUIÈME RÉUNION DU SOUS-GROUPE DE PLANIFICATION OPÉRATIONNELLE D'AÉRODROME (AOP/SG/5)**

(Dakar, 26 - 28 March 2003)

List of Participants/Liste des Participants

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Participants: 27
States/Etats: 11
International organization: 2

APPENDIX B: DEFICIENCIES IN THE AOP FIELD

(Ref: Air Navigation Plan - Africa-Indian Ocean Region (Doc. 9702))

Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
Aerodrome fencing and security lighting AFI/7 Conc. 4/2 and 4/9 Annex 14 vol I, para 8.4.1 - 8.4.3	Cameroon/ Douala	Aerodrome fence inadequate	1993	Access to manoeuvring areas by Unauthorized persons.	Fence to be completed	CCAA/ ADC		B
	Chad/ N'djamena	Aerodrome fence incomplete	1998	Access to manoeuvring areas by unauthorized persons.	Fence to be completed	DCA/ ANAT		A
	Central African Republic/ Bangui	Aerodrome fence non existing	1999	Access control impossible.	Build perimeter fence and road for patrols.	DGACM		A
	Côte d'Ivoire/ Abidjan	Aerodrome fence incomplete	1998	Access to all airside areas by Unauthorized persons.	Fence to be completed	SODEXAM/ ANAC		A
	Congo/ Brazzaville	Aerodrome fence inadequate	1993	Control of unauthorized persons in movement areas inadequate	Extensive repair of fence required	ANAC	2000	A
	Djibouti/ Djibouti	Aerodrome fence inadequate	2002	Control of unauthorized persons in movement areas inadequate	Situation currently under control only due to presence of military	DAC		A

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Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	D. R. of Congo/ Kinshasa	Aerodrome fence incomplete	1998	Access to all airside areas by unauthorized persons.	Extensive repair of fence required	RVA		A
	Gabon/ Libreville	Aerodrome fence incomplete	1999	Access to airside by unauthorized persons.	Complete the fence construction	SGAC		A
	Guinea Bissau/ Bissau	Aerodrome fence inadequate	1993	Access to airside by unauthorized persons.	Extensive repair of fence required	DCA		B
	Mali/ Bamako				Fence around the restricted area under construction. New fence completed and commissioned on 13 August 2000.	DNAC/ ADM	2000	
	Mauritania/ Nouakchott	Aerodrome fence inadequate	1996	Control of access by animals and unauthorized persons to airside inadequate	New concrete fence installed but not entirely adequate	SAM		A
	Mauritania/ Nouadhibu	Aerodrome fence non existing.	1996	Access to airside by unauthorized persons.	Build a perimeter fence using appropriate materials.	SAM		B

Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Niger/ Niamey	Aerodrome fence inadequate	1992	Access to airside by unauthorized persons.	Corrective measures not entirely adequate System of access ID implemented. Project of a new fence envisaged.	DCA/ ASECNA		B
	Nigeria/ Abuja	Aerodrome Fence inadequate	2000	Access to airside by unauthorized persons and stray animals	Build a perimeter fence using appropriate materials. Project for adequate fence budgeted for year 2001.	FAAN	2001	A
	Nigeria/ Kano	Aerodrome fence inadequate	1999	Access to airside by unauthorized persons and stray animals	Previous efforts not effective. Project for adequate fence budgeted for year 2001.	FAAN	2001	A
	Nigeria/ Lagos	Aerodrome fence incomplete	1993	Access control implemented with regular patrols using the perimeter road.	New type of fence under construction.	FAAN	2001	B
	Sao Tomé & Principe/ Sao Tomé	Aerodrome fence inadequate	1993	Access to airside by unauthorized persons	Fence to be repaired	DCA		B
	Sierra Leone/ Freetown	Fence missing over more than half of perimeter.	1993	Access to airside by unauthorized persons	Situation to be evaluated after civil unrest	SLAA		B

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Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Somalia/ Mogadishu	Aerodrome fence inadequate	1995	Access to airside by unauthorized persons	Extensive repair of fence	Not available		B
	Tanzania/ Dar es salaam	Aerodrome fence incomplete	2000	Access to airside by unauthorized persons	Complete the construction of concrete block fence ongoing repairs to the fence and rehabilitation of the perimeter road	TAA	2003	B
Bird hazard control and reduction AFI/7 Conc. 4/2 and 4/7 Annex 14 vol I, para 9.5.1 - 9.5.3	Angola/ Luanda	Inadequate bird hazard control	1998	Grain seeds available close to aircraft manoeuvring areas. Slum development close to airport.	Control measures to be implemented and monitored Land use plan for airport environs required.	ENANA		A
	Benin/ Cotonou	Inadequate bird hazard control mechanism	1998		Control measures to be implemented and monitored	ASECNA/ DCA		A
	Burkina Faso/ Ouagadougou	Inadequate bird hazard control mechanism	1998	Problem discussed with Administration during the last Workshop on reducing bird hazard held in Ouagadougou from 9 to 13 October 2000.	Control measures to be implemented and monitored in particular relocation in coordination with local authorities of factors attracting birds (tannery, slaughterhouses, refuse dumps). Organization in progress.	ASECNA- DAAN/ DCA		U

Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Chad/ N'Djamena	Bird hazard control measures to continue	1996		Equipment to reduce number of birds now available, Bird Hazard Committee created.	ANAT/ DCA/ ASECNA	1999	A
	Côte d'Ivoire/ Abidjan	Bird hazard control measures to continue.	1998		Coordination committee and equipment to reduce number of birds now available.	SODEXA M/AERIA/ ASECNA		B
	Democratic Rep. Of Congo/ Kinshasa	Inadequate bird hazard control measures	1998		Control measures to be implemented and monitored	RVA		A
	Gabon/ Libreville	Bird hazard control measures necessary	1996		Bird control measures to be enhanced and monitored.	SGAC/ ASECNA/ ADL	1998	B
	Guinea/ Conakry	Bird hazard control measures to continue.	1998		Bird control measures in progress	DNAC/ ANA- SOGEC		B
	Kenya/ Nairobi	Inadequate bird hazard control measures	1999	Airport located close to national park.	Bird control measures now established to be enhanced and monitored	KAA	2003	U
	Libya/ Benghazi	Bird hazard control measures required			Control measures to be implemented and monitored	NCAA		U
	Libya/ Tripoli	Bird hazard control measures required			Control measures to be implemented and monitored	NCAA		U

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Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Malawi/ Lilongwe	Additional bird hazard control measures required	1993	Ornithological study required to determine cause of bird attraction to airport.	Monitor and control farming activities around airport. Maintain appropriate grass height. Ornithological study.	Malawi DCA		U
	Mali/ Bamako	Bird hazard control measures required	1998		Bird Control Committee created in 1999. <i>Environmental management measures and awareness increase through media underway.</i>	DCA/ ASECNA/ Aéroports du Mali.		A
	Senegal/ Dakar	Bird hazard control measures to continue	1993		Bird control unit set. Equipment available. <i>Bird control unit to be re-activated.</i>	ASECNA/ AANS		B
	Sudan/ Khartoum	Bird hazard control measures required	1993		Control measures to be implemented and monitored	NCAA		A
	Togo/ Lome	Bird hazard control measures to continue.	1996		Bird control committee and scaring equipment now available. <i>Committee activated and bird hazard control programme developed.</i>	DCA/ ASECNA/ SALT	2001	A

Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
Rescue and fire fighting AFI/7 Conc. 4/2 and 4/7 Annex 14 Vol. 1 para 2.11.1 - 2.11.4 and 9.2.1 - 9.2.33	D. R. of Congo/ Kinshasa	RFFS: Major improvements required. RFFS CAT 9 not achieved. (Only cat 7 available)	1997		Procure new fire vehicles and accessories. Training and recycling of personnel. Action by ICAO/UNDP in progress	RVA	1998	U
	Guinea Bissau/ Bissau	Fire fighting services inadequate. Rescue services inadequate.	1999	Equipment vandalized during the unrest situation.	General revision and rehabilitation required. Supplement certain rescue equipment to meet the required level as in AFI ANP.	ENAG		U
	Liberia/ Monrovia	RFFS: inadequate	1996	A study was carried out by ICAO/UNDP.	Rehabilitate facilities and acquire equipment as defined in the OACI/PNUD study available.	DCA		U
	Mozambique/ Maputo	RFFS inadequate Rescue services lacking Staff inadequate and not sufficiently trained. Major improvements required.	2002	Private sector involvement contemplated	Major investment is required after a thorough evaluation of requirements.	Aeroportos de Mocambique	2003	A
	Nigeria/ Lagos	Communications equipment on RFF vehicles inadequate	2000		Equip all fire tenders with adequate two- way communication equipment.	FAAN		A
	Somalia/ Mogadishu	RFFS practically inexistent	1995		Establish new RFFS for Mogadishu airport	Not available!		U

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Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Tanzania/ Zanzibar	Fire fighting and rescue services inadequate	1999	CAT 8 required not met, rescue equipment not sufficient, staff not adequately trained, no grid map, station inappropriately located	Heavy investment required to train staff, procure additional fire trucks and rescue equipment and tools.	Zanzibar Director Aviation		U
Pavement strength AFI/7 Conc. 4/4 and 4/10 Annex 14 Vol.1 para 2.5.1 - 2.6.8	Angola/ Luanda	Parallel txwy to Rwy 23 required. Runway needs resurfacing. Runway shoulders and clear-way need stabilizing. Apron uneven.	1998	Delays inevitable. Aircraft vibrating at take-off and landing. FOD risks.	Development master plan and corresponding financial investment required.	ENANA		A
	<i>Burkina Faso/ Ouagadougou</i>	<i>Wrenching of asphalt pavement in some zones of Apron. Raising of bitumen to the surface of runway pavement.</i>	1999 1999	<i>Risk of skid during raining times.</i>	<i>Repairs on damaged areas required. Monitor the status and initiate studies for rehabilitation if deemed necessary.</i>	ASECNA/ DAAN		<i>B B</i>
	Cameroon/ Douala	Bearing strength on some parking positions (C8) inadequate. Taxiway surface in critical condition.	1993	Risk of damage to aircraft.	Matter being reviewed for action	ADC/ CCAA	1998	A

Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Cameroon/ Yaounde	Poor braking action when wet	1998	Information on runway friction characteristics not promulgated.	Measure friction resistance and promulgate. Rubber removal procedures required	ADC/ CCAA		U
	Chad/ N'Djamena	Runway surface degraded. Heavy rubber deposits on runway	1998	Potholes on runway surface	Pavement rehabilitation. Rubber deposit removal	ANAT/ DCA		U A
	Congo/ Brazzaville	Bearing strength inadequate.	1998		Pavement rehabi- litation required.	ANAC		U
	Côte d'Ivoire/ Abidjan	Parallel twy 23 required.	1998	Rehabilitation in progress.		AERIA		A
	D.R. of Congo/ Kinshasa	Rwy surface uneven and bumpy (bearing strength problem over a portion of runway). Apron surface degraded esp. P12 & P13. Apron inadequate esp. At night.	1998	Unevenness caused by slippage of concrete slabs and many cracks. Risk to damage of aircraft. High risk of collision of aircraft.	Pavement rehabilitation to be put in place.	RVA		A
	Gambia/ Banjul	Bearing strength problem on taxiway and runway.	1999	Matter being reviewed for action.	Pavement surface rehabilitation.	GCAA		U
	Guinea Bissau/ Bissau	Parking area insufficient Bearing strength on Parking B.	1998		Apron rehabilitation and expansion required	DGCA/ ENAG		B

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Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Guinea/ Conakry	Runway slippery when wet. Serious vibrations during take-off or landing roll.	1999 2000		Friction characteris- tics to be measure and published. <i>Initiate studies on the phenomenon and pavement repairs if necessary.</i>	DNAC/ ANAC		A A
	Kenya/ Mombasa	Runway surface rough, severe undulations	1999	Extreme vibrations during take-off and landings.	Resurfacing to be programmed after thorough study of causes of undulations	KAA		A
	Malawi/ Lilongwe	Runway damaged	1999		Resurfacing to be programmed	DCA		B
	Morocco/ Casablanca	Runway surface damaged and rough.	1999					
	Mozambique/ Maputo	Runway damaged	1999		Runway resurfacing required	Aeroportos de Mocambiq ue		B
	Nigeria/ Kano	Severe undulation and roughness on first half of RWY06	1998	Causing bouncing during take-off roll. Studies for rehabilitation in progress.	Pavement rehabilitation to be put in place.	FAAN	2001	U
	Rwanda/ Kigali	Runway slippery when wet.	1999	Probably due to rubber deposits	Removal of rubber deposits. Measure friction factor and publish.	Régie des Aéroports		A
	Tanzania/ Dar es salaam	Runway surface rough	1999		Resurfacing to be programmed	DA		B

Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Tanzania/ Zanzibar	Rwy length inadequate, rwy strength inadequate.	1999	FOD cases reported, payload restrictions	Pavement overlay required. Runway length to be extended.	Zanzibar Director Aviation		U
	Tunisia/ Djerba	Taxiway surfaces rough	1999					
	Tunisia/ Tunis	First part of runway 01 rough	1999					
Emergency plan Annex 14 vol I para 9.1.1-9.1.9	Angola/ Luanda	No aerodrome emergency plan No grid map available	1995	ICAO guidance material cannot be used due to language problems.	Develop an emergency plan. Conduct a full scale emergency exercise.	ENANA		A
	Central African Rep./Bangui	Emergency plan needs updating.	1999		Update the existing plan. Conduct a full scale emergency exercise.	DGACM/ ASECNA		B
	Côte d'Ivoire/ Abidjan	Emergency plan needs updating.	1998		Update the existing plan. Conduct a full scale emergency exercise.	ANAC/AS ECNA		B
	Democratic Rep. of Congo	Emergency plan needs updating	1997		Update the existing plan	RVA		B
	Djibouti	No aerodrome emergency plan	2000		Develop an emergency plan. Conduct a full scale emergency exercise.	Aéroport de Djibouti	2003	A
	Equatorial Guinea/Malabo	No aerodrome emergency plan	1993		Draft being reviewed	ASECNA		A

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Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Gabon/ Libreville	Emergency plan needs updating	1999		Update the existing plan and organize a full-scale exercise.	SGAC/ ASECNA		A
	Guinea Bissau/Bissau	No aerodrome emergency plan	1993		Develop an airport emergency plan. Conduct full scale emergency exercise	DGAC/ ENAG		A
	Liberia/ Monrovia	No aerodrome emergency plan	1996		Develop plan. Conduct emergency exercise	DCA	1998	A
	Madagascar/ Antananarivo	No aerodrome emergency plan. Emergency exercises not held yet.	2001	Draft emergency plans by each organization to be amalgamated	Develop an airport emergency plan. Conduct full scale emergency exercise	ADM/ ADEMA/ ASECNA	2001	A
	Mozambique/ Maputo	No aerodrome emergency plan. Emergency exercises not held yet.	2002	Existing draft quite old, innacurate and inadequate	Develop an airport emergency plan. Conduct full scale emergency exercise	NCAA	2003	A
	Rwanda/Kigali	No aerodrome emergency plan. Emergency exercise not held at regular intervals	2000		Develop an airport emergency plan. Conduct full scale emergency exercise	Régie des Aéroports		A
	Sao Tomé & Principe/Sao Tomé	No aerodrome emergency plan	1993		Develop an emergency plan and conduct exercises at regular intervals	DCA		A
	Somalia/ Mogadishu	No aerodrome emergency plan	1995		Develop an emergency plan. Conduct a full scale emergency exercise.	Not available!		B

Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Tanzania/ Zanzibar	No aerodrome emergency plan	1999	Emergency plan still being drafted	Develop an emergency plan. Conduct a full scale emergency exercise.	Zanzibar Director Aviation		B
	Togo/ Lomé	No aerodrome emergency plan	1999	Emergency plan still being drafted	Develop an emergency plan. Conduct a full scale emergency exercise. <i>Emergency plan approval process underway. Exercise envisaged with the assistance of ICAO.</i>	DAC/ ASECNA	2001	B
Foreign objects on movement area AFI/7 Conc. 4/4 Annex 14 vol I para 2.9.1-2.9.3	Angola/ Luanda	Foreign objects on movement areas	1995	Potential damage to aircraft engines due to ingestion of sand.	Establish ramp safety committee. Procure pavement sweeper.	ENANA		B
	Mozambique/ Maputo	Blowing sand on taxiway	1998	Potential damage to aircraft engines due to ingestion of sand.	Establish sand cleaning work programme. Procure pavement sweeper if necessary.	NCAA		B
Power supply. AFI Conc 4/2 and 4/8. Annex 14 Vol 1 para 9.4.1-9.4.27	Angola/ Luanda	Primary Power supply unreliable	1995	Although substantial backup system in place, reliability of power supply still precarious.	Negotiate with primary power supply company for reliability	ENANA		B

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Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	D.R. of Congo/ Kinshasa	Primary power supply unreliable. Secondary power supply arrangements deficient	1998		Negotiate with primary power supply company for reliability. Secondary power supply rehabilitation.	RVA		A
	Guinea Bissau/ Bissau	Secondary power supply inadequate	1993		Rehabilitation of secondary power supply required	DGCA		B
	Kenya/ Nairobi	Mains power unreliable. Secondary power supply arrangements deficient	1999	Adverse effect on all lighting, navaids and communication	Negotiate with primary power supply company for reliability. Secondary power supply rehabilitation.	KAA	2003	A
	Kenya/ Mombasa	Mains power unreliable. Secondary power supply arrangements deficient	1999	Adverse effect on all lighting, navaids and communication	Negotiate with primary power supply company for reliability. Secondary power supply rehabilitation.	KAA	2003	A
	Nigeria/ Lagos	Switch over time to secondary power supply inadequate	2000	Rehabilitation in progress	Rehabilitation of the connections of the facilities to standby generators to ensure automatic connection on failure of the primary source.	FAAN	2001	U

Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Nigeria/ Port Harcourt	primary power very unreliable	1998	Frequent mains power, arrangements unreliable	Negotiate with primary power supply company for reliability. Negotiations are on for a dedicated primary power source. A new 850 KVA secondary source have been provided.	FAAN	2000	B
	Somalia/ Mogadishu	Power supply inadequate	1995			Not available		
	Tanzania/ Dar es salaam	Main power supply unreliable. Secondary power supply inadequate	1996	Frequent major surges adversely affecting reliability of all lighting, nav aids and communication	Negotiate for new mains supply. Rehabilitate secondary power supply. Establish planned maintenance programme.	DA		U
Implementation of visual aids AFI/7 Conc 4/1 Annex 14 Vol I chapter 5	Angola/ Luanda	Unserviceable aids not NOTAM'ed, NDB approach only without DME vertical guidance, All markings faded	1998		NOTAM office to be revamped. Repaint markings.	ENANA		A A B

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Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Benin/ Cotonou	PAPIS not available.	1999	Inadequate visual guidance to pilots. Risk of collision between aircraft and obstacles	PAPIS to be installed as per AFI ANP	ASECNA		A
		Apron markings inadequate.	2000		Rehabilitation of the apron markings taking account of different types of aircraft and minimal separation distances and update the AIP.	ASECNA		A
	Cameroon/ Douala	All markings faded	1999	Inadequate visual guidance to pilots	Regular repainting of marking required.	ADC		B
	Cameroon/ Yaounde	ICAO obstacle map non available.	1998		Establish an ICAO obstacle map and publish.	ADC/ CCAA		B
	Côte d'Ivoire/ Abidjan	APAPIS implemented on RWY21 only.	1998		PAPIS required on RWY03 also as per AFI ANP.	ASECNA/		B
	Djibouti/ Djibouti	Threshold lighting inoperative, Taxiway lighting inadequate. Runway markings not clear	1999	Inadequate visual guidance to pilots. Many bulbs missing.	Rehabilitate lighting system and implement planned maintenance programme. Repaint markings		2003	A
	D.R. Congo/ Kinshasa	No RWY markings except TDZ. All other markings implemented not meeting requirements. Approach and runway edge lighting deficient.	1998	Inadequate visual guidance to pilots. Many bulbs missing.	New markings to be painted in accordance with Annex 14. Lighting to be rehabilitated.	RVA		U U
	Egypt/ Hurghada	Taxiway and apron lighting inadequate.	1999		Actions are being taken.		1999	A

Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Egypt/ Sharm el Sheik	Taxiway and apron lighting inadequate.	1999		Actions are being taken.		1999	A
	Guinea Bissau/ Bissau	Lighting aids inadequate	1993	Inadequate visual guidance to pilots	Rehabilitation of lighting aids required	DGAC		A
	Malawi/ Lilongwe	Taxiway lights inadequate	1999	Inadequate visual guidance to pilots	Rehabilitate taxiway lights	Malawi DCA		B
	Nigeria/ Abuja	Runway centerline deficient RWY end and threshold 22 lighting inoperative. PAPI not calibrated.	2000		Rehabilitation of the lighting aids required. Calibrate the PAPI and NOTAM	FAAN	2001	B
	Nigeria/ Kano	Threshold and Rwy end lighting partially deficient. Approach lights RWY 06 & 24 partially inoperative. Taxiway edge lighting not implemented while centerline lights partially inoperative. PAPIs require calibration. Runway markings non conspicuous.	2002	Inadequate visual guidance to pilots Pilots reporting misalignment	Rehabilitate airfield lighting and establish maintenance programme. Implement taxiway light as per AFI ANP. Calibrate PAPIs and NOTAM. Markings to be repainted.	FAAN	2001	U B U A

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Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Nigeria/ Lagos	Txwy lighting inadequate and reflective markers ineffective. Centerline lighting at high speed turnoffs deficient and colors non standard. No approach light on 01L and 01R. Intensity of approach lighting on 19R cannot be controlled from control tower. Rwy Markings unclear.	1999	Taxiway lights required Approach lights frequently reported too bright.	Development plans for rehabilitation are required. Markings to be repainted.	FAAN	2001	A
	Nigeria/ Port Harcourt	Approach lighting 21L unreliable. Rwy edge lights on first quarter of Rwy 21 inoperative. No txwy lighting PAPIs inoperative. Runway marking unclear.	1999	Inadequate visual guidance to pilots	Rehabilitation of lighting aids required Markings to be repainted.	FAAN	2001	A
	Rwanda/ Kigali	Unserviceable aids not NOTAM'ed,	1999	Pilots misguided	NOTAM office to be revamped	RWANDA Régie des Aéroports	1999	U

Identification		Shortcomings			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Comments	Description	Executive body	Date of complete	Priority
	Sierra Leone/ Freetown	Only 50% runway edge lighting available Markings faded	1993	Inadequate visual guidance to pilots	Rehabilitate runway edge lights. Repaint markings. Revaluation of the damage caused by the war with all the lighting system.	SLAA		A B
	Somalia/ Mogadishu	VASIS not working Markings totally faded	1995	Inadequate visual guidance to pilots	Evaluation of the damage caused by the war on the lighting system.	Not available		B
	Sudan/ Khartoum	VASIS not operational	1993		Implement PAPIs as per AFI ANP	NCAA		
	Zambia/ Lusaka	Approach lights inoperative, taxiway lights inadequate.	1999	Pilot's visual guidance inadequate	Project for rehabilitation of lighting system ongoing	ZNACL		A

**TERMS OF REFERENCE, WORK PROGRAMME AND COMPOSITION
OF THE AERODROME OPERATIONAL PLANNING SUB-GROUP (AOP/SG)**

1. **Terms of reference**

a) **In the field of aerodrome operational planning:**

To keep under review the adequacy of the requirements contained in the ICAO Regional Air Navigation Plan taking into account changes to aircraft operations, new operational requirements and/or technological developments and propose amendments as required.

b) **In the field of aerodrome services:**

To identify, assess and track critical deficiencies in the provisions of aerodrome installations, equipment and services and develop strategies for their removal with priority to:-

- i) aerodrome power supply;
- ii) visual aids;
- iii) rescue and fire fighting;
- iv) aerodrome fencing;
- v) bird hazards;
- vi) aerodrome emergency planning; and
- vii) pavement surface condition.

2. **Work Programme:**

No.	Task description	Priority	Target Date
1	Review at each AOP/SG meeting the content of the AFI FASID and where necessary, after coordination with users and operators, introduce the respective changes through the established procedures. (AFI/7 RAN Meeting Conc. 3/2.)	A	Continuing
2	Develop a data base on deficiencies in the AOP field including their safety assessment according to the ICAO approved procedures and at each AOP/SG meeting, review and update the data base and identify requirements for possible technical cooperation. (AFI/7 RAN Meeting Concs. 14/1 and 14/2 and Rec. 14/3)	A	Continuing
3	Review the severity of the bird hazard and the status of implementation of appropriate bird hazard reduction measures in the Region .(AFI/7 RAN Meeting Conc. 4/7)	A	Continuing

APPENDIX C

No.	Task description	Priority	Target Date
4	Review States efforts to allocate the necessary resources to ensure the establishment of preventive maintenance at their aerodromes in order to provide adequate maintenance of facilities, installations and services. (AFI/7 RAN Meeting Conc. 4/10)	A	APIRG/14
5	Review the need and monitor the measurement and reporting by States of the surface condition and unevenness on movement areas at aerodromes in the AFI Region. (AFI/7 RAN Meeting Rec. 4/4)	B	APIRG/14
6	Review the provision of rescue and fire fighting services and emergency planning at international aerodromes in the AFI Region and monitor the switch over to the use of environmentally friendly materials for fire fighting. (AFI/7 RAN Meeting Conc. 4/6)	A	APIRG/14
7	Review and monitor the development and implementation of guidelines and procedures for surface movement guidance and control systems at complex airports and during low visibility conditions. (Input to CNS/ATM planning process)	C	APIRG/15
8	Review, assess and provide guidance on the impact of the operations of the new larger aeroplanes at aerodromes in the AFI Region.	A	APIRG/15
9	Review and monitor the implementation of new approach and landing systems in order to ensure smooth transition and optimization of the performance of the systems implemented. (Input to CNS/ATM planning process)	A	APIRG/14
10	Monitor the progress in the implementation of the common geographical reference system (WGS-84) and the publication of coordinates of significant points with required degree of accuracy in the AFI Region. (AFI/7 RAN Meeting Recs. 12/28 and 12/29)	A	APIRG/14
11	Review and monitor the status of implementation of visual aids in the AFI Region and of provision of resources for ensuring preventive maintenance, human factors and progress in technology development in order to achieve increased safety and capacity. (AFI/7 RAN Meeting Conc. 4/1, Rec. 14/7)	A	APIRG/14
12*	Review and monitor the traffic growth in the AFI Region in order to develop appropriate guidance for the development of planning criteria.	B	APIRG/14
13	Monitor the work being conducted by the ICAO Air Navigation Commission on the impact of new larger aeroplanes at aerodromes and assess the particular circumstances pertaining to the aerodromes in the AFI Region.	A	APIRG/15

APPENDIX C

No.	Task description	Priority	Target Date
14	Taking into account human factors, study problems and make specific recommendation related to AOP personnel, with a view to ensuring the best services (AFI/7 RAN Meeting, Rec. 14/7)	A	Continuing

Priority:

A High priority tasks, on which work should be speeded up;

B Medium priority tasks, on which work should be undertaken as soon as possible, but without detriment to priority A tasks;

C Lesser priority tasks, on which work should be undertaken as time and resources permit, but without detriment to priority A and B tasks.

* This task will be a subject of coordination with the Traffic Forecasting Task Force.

3. Composition:

Angola, Algeria, Burkina Faso, Cameroun, Cape Verde, Congo, Côte d'Ivoire, Egypt, Gambia, Ghana, Guinea, Kenya, Malawi, Morocco, Nigeria, Senegal, South Africa, Togo, Tunisia, Uganda, Zambia, ACAC, ACI, ASECNA, IATA and IFALPA.
